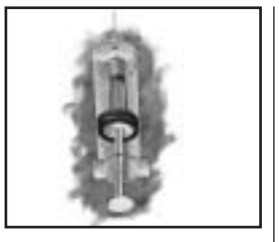

Independent Double-Check –

One simple step to decrease the risks for high alert medications

By Carol Dueck

To develop an environment of increased patient safety, hospitals and long-term care settings can achieve success with small focused projects. With the release of the Narcotic (Opioid) Project in the spring of 2005, the Institute for Safe Medication Practices Canada offered six Priority Recommendations that lend themselves to readily introducing small but meaningful safety initiatives that will produce measurable ways to reduce risk. Using mechanisms such as the Plan-Do-Study-Act (PDSA) cycle (a "trial-and-learning" method to test changes quickly to see how they work), the majority of the recommendations are cost effective and "low tech" implementations.

One of the priority recommendations highlighted in this article is the re-introduction of the independent double-check process targeting high alert drugs. The focus is to encourage nursing staff to use a consistent method to perform a truly independent double-check on selected high alert medications. Until more technology is available to assist health-care practitioners manage high potency medications in the chaotic hospital environments, conducting independent double-checks is one interim safeguard, for protecting both patients and practitioners. Feedback from Ontario hospitals indicated that double-checks are carried out in a variety of ways, with varying degrees of effectiveness. The Narcotic Project is a large binder sharing multiple safety initiatives and tips and provides a definition of an independent double-check, reasons for conducting independent double-checks, tips for a good double-check, and guidance for developing and supporting a double-check system.

Many hospitals in Ontario have responded to the challenge of added safety by adopting the Priority Recommendations. In a recent survey to assess the implementation of the Narcotic (Opioid) Project, ISMP Canada learned that policies requiring documentation of an independent double-check (IDC) for verification of PCA infusion and Epidural infusion pump settings have increased 48% to 63% (increase of 32%). Policies requiring documentation of IDC for verification of intravenous infusion pump settings for narcotics has increased from 26% to 35% (increase of 35%).

During the development of the Priority Recommendations and the safety initiatives in the binder, ISMP Canada collaborated with many stakeholders and regulatory bodies to explore application of the recommendations in all clinical settings and sectors of healthcare.

The College of Nurses of Ontario in its publication The Standard, highlighted IDC and its potential value.1 This article is reproduced with the permission of the college.

CNO examines independent double-checks

Reviewing, or double-checking, your own medication preparations is a step that you already take to ensure that your calculations are correct. In its Medication practice standard, CNO supports this as a way to reduce medication errors; however, there is no law or standard that requires nurses to have colleagues independently double-check their work. In facilities where there are no policies on double-checks, nurses are individually responsible for evaluating the need for a colleague to review their preparations.

The Institute for Safe Medication Practices (ISMP) Canada, a not-for-profit organization that educates health-care professionals about safe medication practices, would like to change this. Ideally, all nurses

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would have colleagues independently double-check their medication preparations.

CNO is engaged in talks with ISMP Canada about this issue, and is determining how feasible independent double-checks are in today's health care environment.

An independent double-check is one in which a colleague, with no prior knowledge of the previous calculation results, goes through the same preparatory steps and arrives at her/his calculation. The final calculations of each are compared, and any discrepancies are addressed before the medication is administered.

Studies have shown that people performing double-checks are more likely to miss an error when they have been told about the prior calculations or when they carry out the double-check with the person who completed the original task. In other words, people are more likely to be drawn into the same mistake twice when the previous calculations are already known. Independent double-checks avoid this problem and are a way to increase patient safety by catching errors before they reach clients.

Recently CNO conducted an informal survey of administrators from a range of health-care settings to obtain feedback about nurses adopting independent double-checks. While supportive, administrators expressed concern about the human resources needed to implement such a system. This was especially true of facilities involved in long-term care, agencies that employ nurses who work independently in the community or settings where there is only one nurse (e.g., an occupational health nurse).

CNO will be conducting further surveys of nurses and examining the human resource and financial issues arising from a system of independent double-checks. At present, CNO urges the practice of independent double-check when a medication has a high toxicity, the calculations are particularly complex and the facility has the staffing resources to implement such a system.

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[1] *College of Nurses of Ontario. CNO Examines Independent Double Checks. The Standard. December 2, 2004. Available at: http://www.cno.org/pubs/mag/2004/12Dec/sec/focus.htm#1, accessed on January 9, 2006.*